# DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

#### LAKE TROPHIC DATA

#### MORPHOMETRIC:

Lake: MOOSE FALLS, UPPER	Lake Area (ha):	10.28
Town: PITTSBURG	Maximum depth (m): 2	1.1
County: Coos	Mean depth (m):	.7
River Basin: Connecticut	Volume $(m^3)$ : 67	000
Latitude: 45°11'44" N	Relative depth: 0	.6
Longitude: 71°11'43" W	Shore configuration: 1	85
Elevation (ft): 1972	Areal water load (m/yr): 14	8.8
Shore length (m): 2100	Flushing rate $(yr^{-1})$ : 22	8.0
Watershed area (ha): 1884.1	P retention coeff.:	1.14
<pre>% watershed ponded: 6.6</pre>	Lake type: natural w/	dam

partition and the state of the		
BIOLOGICAL:	5 February 1997	6 August 1996
DOM. PHYTOPLANKTON (% TOTAL) #1	NOT SAMPLED	CHRYSOSPHAERELLA 50%
#2		TABELLARIA 20%
#3		
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		2.18
DOM. ZOOPLANKTON (% TOTAL) #1		SPARSE - NO DOMINANT
#2		
#3		
ROTIFERS/LITER		15
MICROCRUSTACEA/LITER		<1
ZOOPLANKTON ABUNDANCE (#/L)		30
VASCULAR PLANT ABUNDANCE		Common/Abun
SECCHI DISK TRANSPARENCY (m)		1.6
BOTTOM DISSOLVED OXYGEN (mg/L)		9.8
BACTERIA (E. coli, #/100 ml) #1		1
#2		
#3		

# SUMMER THERMAL STRATIFICATION:

## weakly stratified

Depth of thermocline (m): None Hypolimnion volume  $(m^3)$ : None Anoxic volume  $(m^3)$ : None

CHEMICAL:		ke: MOOSE FA wn: PITTSBUR		
	5 February 1	997 6	August 199	6
DEPTH (m)		0.5		1.5
pH (units)		6.8		6.5
A.N.C. (Alkalinity)		9.6		9.6
NITRATE NITROGEN				
TOTAL KJELDAHL NITROGEN		0.70		0.52
TOTAL PHOSPHORUS		0.017		0.017
CONDUCTIVITY (µmhos/cm)		34.6		35.0
APPARENT COLOR (cpu)		65		65
MAGNESIUM		0.53		
CALCIUM		4.6		
SODIUM		1.2		
POTASSIUM		< 0.40		
CHLORIDE				
SULFATE				
TN : TP				
CALCITE SATURATION INDEX		2.9		

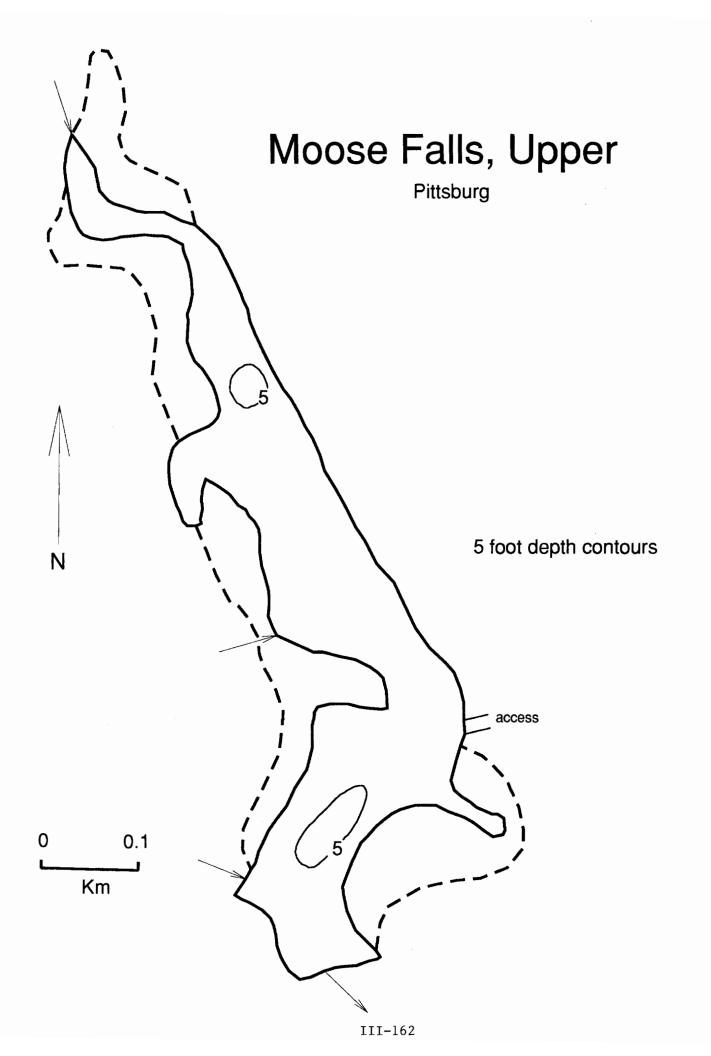
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1996

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	4	4	0	8	Meso.

#### COMMENTS:

- 1. This is a shallow impoundment on the Connecticut River between Second and Third Connecticut Lakes, just upstream of the campground near Moose Falls.
- 2. Motor boats are prohibited on this pond.
- 3. No winter samples were collected; ice went to the bottom at the sampling site.



#### FIELD DATA SHEET

LAKE: MOOSE FALLS, UPPER DATE: 08/06/96

TOWN: PITTSBURG WEATHER: PARTLY CLOUDY, WARM

DATE: 08/00/90	MEATHER: PARTLI CLOUDI, WARM		
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	26.0	8.2	101 %
0.5	23.4	8.2	95 %
1.0	20.0	10.0	110 %
1.5	16.0	9.8	98 %
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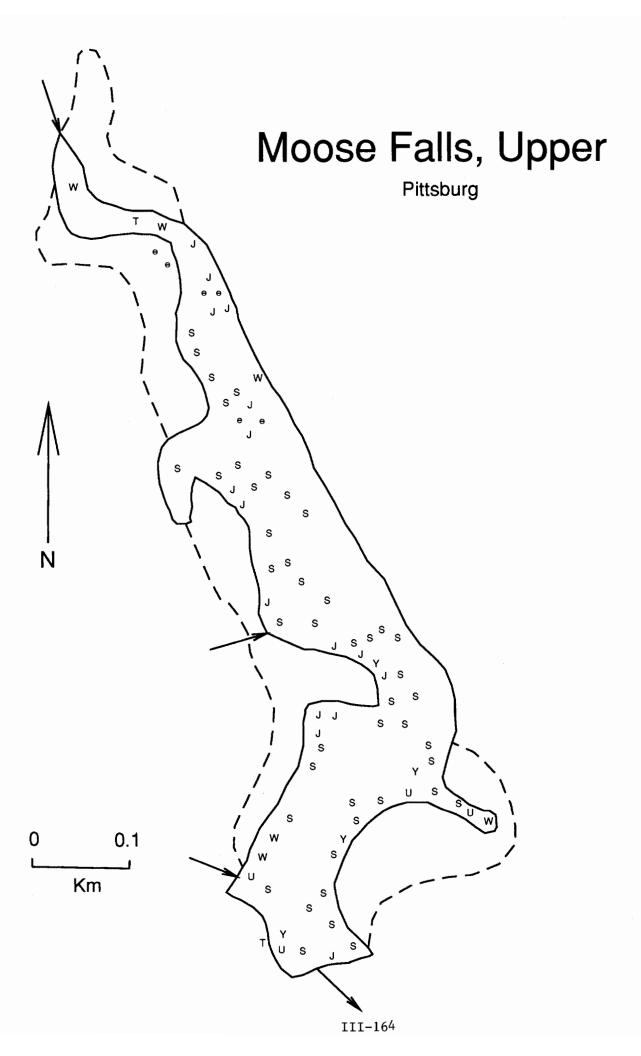
SECCHI DISK (m): 1.6 BOTTOM DEPTH (m): 2.1

> TIME: 1500

COMMENTS: The temperature dropped 10° C in 1.5 meters, but no

thermocline was present.

\*Dissolved oxygen values are in mg/L



# AQUATIC PLANT SURVEY

LAK	E: MOOSE FALLS, UPPER	TOWN: PITTSBURG	DATE: 08/06/96
Key	PLANT	ABUNDANCE	
I.C.y	GENERIC	COMMON	ABONDANCE
S	Sparganium	Bur reed	Common
U	Utricularia	Bladderwort	Scattered
Y	Nuphar	Yellow water lily	Scattered
W	Potamogeton	Pondweed	Common
J	Juncus	Rush	Common
Т	Typha	Cattail	Sparse
е	Eleocharis	Spike rush	Scattered
	Hippuris vulgaris	Mare's-tail	Abundant
	Myriophyllum humile	Water milfoil	Abundant
	Vallisneria americana	Tape grass	Abundant

#### OVERALL ABUNDANCE: Common/Abun

## **GENERAL OBSERVATIONS:**

- 1. Mare's-tail, native milfoil and tape grass were all abundant and covered most of the bottom. They are not depicted on the map because their abundance would mask the other plants.
- 2. Stumps were very common in the pond.
- 3. Emergent vegetation was scattered but submerged plants were abundant, giving an overall common/abundant rating.